

Appl. No.: 10/675,241
Amtdt. dated 02/16/2006
Reply to Office Action of November 16, 2005

REMARKS/ARGUMENTS

Reexamination and reconsideration of this application, withdrawal of the rejections, and formal notification of the allowability of all claims as now presented are earnestly solicited in light of the above amendments and remarks that follow. Claims 1-24 are pending in the application. Claims 22-24 have been added herein, and are fully supported by the specification and original claims, such as claims 3-5.

Claims 1-3, 5-8, 10-15, and 21 stand rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 5,746,230 to Arterberry *et al.* in view of U.S. Patent No. 4,971,078 to Deutsch *et al.* Similarly, claim 9 stands rejected as being unpatentable over the Arterberry and Deutsch references and further in view of U.S. Patent No. 3,460,543 to Keith *et al.* Further, claims 16, 17, 19, and 20 stand rejected under 35 U.S.C. §103(a) as being unpatentable over the combination of the Arterberry and Deutsch references and further in view of U.S. Patent No. 3,658,069 to Wise *et al.* Additionally, claim 18 stands rejected as unpatentable over Arterberry, Deutsch, Wise, and U.S. Patent No. 5,714,126 to Frund. Applicants respectfully traverse all rejections based on the combination of the Arterberry and Deutsch references.

In all of the above rejections, the Examiner is relying upon the Arterberry reference as disclosing a filter element comprising two plugs of filter material defining a compartment therebetween, the compartment optionally being filled with charcoal. The Examiner notes that the Arterberry reference fails to teach or suggest a channel extending through a section of filter material. However, the Examiner relies upon the Deutsch reference as suggesting a channel extending through a section of filter material and concludes that it would have been obvious to combine the channel of Deutsch with the filter described in Arterberry. For the reasons set forth below, we believe that one of ordinary skill in the art would have no motivation to combine the Arterberry and Deutsch references as contemplated in the rejection.

The Deutsch patent is directed to the delivery of flavorants by incorporation of flavorants into thermoplastic materials forming tubes through a filter element. The primary embodiment, shown in Fig. 2, comprises a tube extending completely through the filter element. Although alternative embodiments are shown in Figs. 3 and 4 where the tubes do not extend completely through the filter element, the Deutsch patent is completely silent as to whether the tube should

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be positioned at the mouth-end of the filter segment or the tobacco-end of the filter segment. No guidance whatsoever is provided in the Deutsch patent for determining the placement of the tubes relative to the tobacco rod or the mouth-end of the filter element. Thus, even if one were to combine the teachings of Arterberry with the teachings of Deutsch, there is nothing to lead one of skill in the art to the specific configuration claimed in the present invention. As noted in claim 1, the present invention is directed to filter elements wherein at least one channel extends through the section of filter material positioned at the end of the filter element proximal to the tobacco rod. There is nothing in the cited references to lead one of skill in the art to such a configuration.

If anything, it is likely one of ordinary skill in the art would be inclined to place the tubes of Deutsch, which contain a flavorant, in the mouth-end section of filter material rather than the tobacco-end section of filter material. This is likely because one of skill in the art would be aware that a charcoal material such as described in the Arterberry patent can lead to undesirable changes in the sensory properties of the smoke. This is noted in the background section of Applicants' specification on page 2, wherein it is noted that tobacco smoke filtered through a conventional carbon-containing filter element can be characterized as having slightly metallic, drying, and powdery flavor characteristics. Since the desire of the Deutsch patent is to improve the flavor of smoke exiting a cigarette, it stands to reason that one of skill in the art would be disinclined to utilize the tubes in Deutsch in a configuration as set forth in the present claims. Instead, if anything, one of skill in the art would view the placement of the flavorant-enhanced tubes of Deutsch as appropriate for the mouth-end filter segment so that the poor flavor attributes of the carbon could be adjusted. For this reason, Applicants respectfully request reconsideration and withdrawal of this rejection.

Applicants also note that the present application includes evidence of surprising results that are not described in the cited prior art and that would strongly weigh against a finding of obviousness. Specifically, the Examiner's attention is directed to Example 5 in the application, where comparative testing is described between a cigarette having a configuration similar to that described in Arterberry (see the filter element described in Example 1), and a filter element comprising one or more tubes in the tobacco-end segment of the filter. As set forth in Example

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5, the exemplary cigarettes having one or more tubes in the tobacco-end segment of filter material provide a greater reduction of certain vapor-phase mainstream smoke components as compared to the cigarette of Example 1. The surprising result could not be anticipated by any of the teachings of the cited art. The Deutsch reference would not lead one of skill in the art to believe that a combination of Arterberry and Deutsch would result in a reduction in certain vapor phase components. Instead, the addition of a flavorant to mainstream smoke is the only functional result described in Deutsch that can be attributed to the use of the tubes described therein. For this additional reason, Applicants respectfully request reconsideration and withdrawal of all rejections based on the combination of the Arterberry and Deutsch references.

Claims 1, 3, and 4 stand rejected under 35 U.S.C. §103(a) as being unpatentable over the above-described Arterberry patent in view of U.S. Patent No. 6,422,244 to Clarke *et al.* The Examiner relies upon the Arterberry reference as described above, and relies upon the Clarke reference and disclosing at least one channel extending through a section of filter material. Applicants respectfully traverse this rejection.

The proposed combination of the Arterberry reference and the Clarke reference would clearly not lead one of skill in the art to the presently-claimed filter configuration. As noted above, the present invention comprises at least one channel extending through the tobacco-end section of filter material, and the claimed filter element includes a compartment between two sections of filter material. Thus, the claimed filter configuration does not include a channel extending entirely through the filter from one end to the other.

In contrast, the only configuration taught in Clarke involves multiple continuous passages extending between open ends at the two ends of the filter rod (see column 1, lines 32-39). This feature of the Clarke patent is again described in column 2, where it is noted that the axial passages 12 extend from the mouthpiece end of the filter 6 to the cigarette 2 (lines 43-45). Thus, it is clear that Clarke only suggests embodiments wherein axial passages are passed through the entire length of the filter element. Accordingly, one of ordinary skill in the art would have no motivation to modify the filter described in Arterberry, and relied upon by the Examiner, with the teachings of Clarke because the presence of the compartment in the middle of the filter would be considered inconsistent with the Clarke patent's requirement that the axial passages pass

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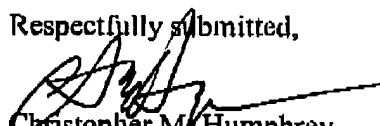
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completely through the filter. As a result, the filter configuration claimed herein would not be suggested to one of skill in the art. Specifically, the teachings of the Clarke reference would not lead one of skill in the art to form a filter element wherein at least one channel extends only through a tobacco-end section of filter material such that mainstream smoke is passed between the tobacco rod and the adsorbent-containing compartment through the channel. Such a configuration is clearly inconsistent with the express teachings of the Clark reference, which requires a continuous axial passage through the entire filter. For this reason, Applicants respectfully request reconsideration and withdrawal of this rejection.

It is not believed that extensions of time or fees for net addition of claims are required, beyond those that may otherwise be provided for in documents accompanying this paper. However, in the event that additional extensions of time are necessary to allow consideration of this paper, such extensions are hereby petitioned under 37 CFR § 1.136(a), and any fee required therefore (including fees for net addition of claims) is hereby authorized to be charged to Deposit Account No. 16-0605.

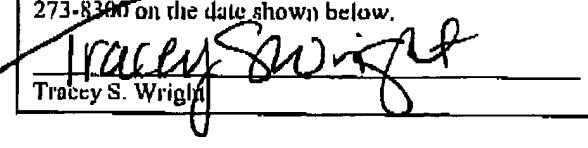
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